# The Grate Recession, Household Formation, and Homeownership rates: Implications for Minorities and Immigrants

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Paper presented at the 42<sup>nd</sup> Annual Conference of Mid-Continent Regional Science Association (MCRSA), Detroit, Michigan, June 8-10, 2011

#### **Presentation Structure**

- Introduction
- Hypotheses
- Literature Review
- Historical Trends
- Data, Method, and Variables
- Homeownership Rates
- Homeownership Gaps
- Conclusion

# The effect of the great recession on homeownership rates

#### **Household formation**

## Delay being householders • Lose home

- Living together
- Increase in homeownership rates

#### **Housing tenure choice**

- Become renter
- Decrease in homeownership rates

# The role of household formation for homeownership rates

- Traditional measurement of homeownership
  - The number of households that are owner-occupied divided by the total number of households or occupied housing units

- The important role of household formation on homeownership
  - Its role in determining the denominator of the homeownership calculation

## **Hypotheses**

 There would be a stronger effect of the economic recession on household formation and homeownership of minorities or immigrants than that of the native-born White

 The gap in the homeownership rates between minorities or immigrants and the native-born Whites would be greater

# Literature review: Household formation

- Important determinant of housing needs
- Age, marriage, and childbearing (Kent, 1992; Garasky, 2001)
- Race/ethnicity (Hughes, 2003)
- Income and the cost of housing (Ermish, 1999; Haurin et al., 1993; Haurin et al., 1997)
- Unemployment rates (Hughes, 2003)

## Literature review: Housing tenure choice

- Considerable economic and social benefits for owner households as well as community (McCarthy et al., 2001)
- Race/Ethnicity (Painter et al., 2000; Masnick 2001b; Gabriel and Rosenthal, 2005)
- Nativity (Native-born vs. Foreign-born) (Alba and Nee, 1997; Myers and Lee, 1996; Myers and Lee, 1998; Borjas, 2002)

## **Previous Studies**

# Haurin and Rosenthal (2007)

- The household formation as endogenous variables on homeownership rates
- A bivariate probit with sample selection model

#### Yu and Myers (2009)

- Estimate the probability of an individual being a nonhouseholder, a renter householder, or an owner householder
- Multinomial logitistic models

## Weaknesses of previous studies

# Haurin and Rosenthal (2007)

 Did not include personal income and housing market conditions

 They assumed all racial groups have same relative rates of household formation.

#### Yu and Myers (2009)

 Their analysis for homeownership rates is based on individuals

 Individual based analyses ignore the influences of household characteristics for homeownership rates

## **Household formation**

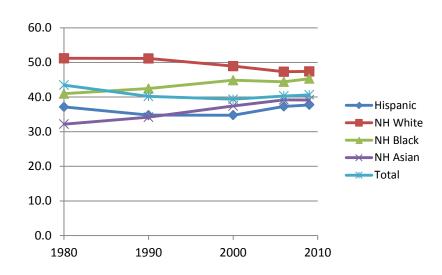
#### **Native-born**

#### 60.0 50.0 40.0 Hispanic NH White 30.0 NH Black NH Asian 20.0 Total 10.0 0.0 1980 1990 2000 2010

#### - Headship rate is the highest in 2000

- Higher Whites and Blacks headship rates
- Lower Asians and Hispanic headship rates

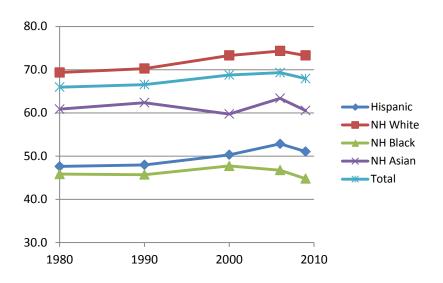
#### Foreign-born



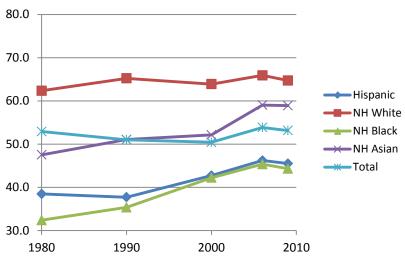
- Headship rate is the lowest in 2000
- Blacks, Asians, and Hispanics have increased or kept similar rates
- Whites shows decreasing trend

## Homeownership rates

#### **Native-born**



#### Foreign-born



- Homeownership increased 1980-2006 and decreased 2006-2009
- Whites, Asians, and Hispanics have the highest homeownership rates in 2006 and show huge drop in 2009
- Blacks were the highest in 2000 and steadily drop until 2009

- Homeownership steadily decreased 1980-2000, increased 2000-2006, and decreased 2006-2009.
- Asians, Blacks, and Hispanics grew
   1980-2006 and decreased 2006-2009

### **Data and Method**

#### **Data**

- American Community Survey (ACS)
- 2006 (before recession)
- 2009 (after recession)
- Individuals living in top 100 populous metropolitan areas

#### **Method**

- A Bivariate Probit Models with Sample Selection
- The Univariate Probit
   Models might mislead
   estimations when a
   correlation coefficient is
   significant in the two
   binary choice models.

### **Variables**

- Individual and household characteristics
  - Age, Gender, Marital status, Educational attainment, Length of stay of immigrants in the U.S., Person's income, Presence of children in household, and household income
- Areal characteristics
  - Housing market conditions
    - Median housing value, median housing value change, and median gross rent
  - Labor market conditions
    - Unemployment rates and employment changes
- Regions
  - Census divisions

# Correlation Coefficients between household formation and homeownership rates

- The correlation coefficients have negative and significant for all racial/ethnic groups
- The correlation coefficients have larger values for Whites and Blacks
- The correlation coefficient for foreign-born Asians has the smallest value
- The differences between 2006 and 2009 for foreign-born are small, but the 2006 values are larger than the 2009 values across all racial/ethnic groups

		Hispanic	NH White	NH Black	NH Asian
2006	NB	-0.499 ***	-0.670 ***	-0.656 ***	-0.422 ***
	FB	-0.569 ***	-0.584 ***	-0.483 ***	-0.229 ***
2009	NB	-0.440 ***	-0.689 ***	-0.624 ***	-0.259 **
	FB	-0.575 ***	-0.602 ***	-0.535 ***	-0.296 ***

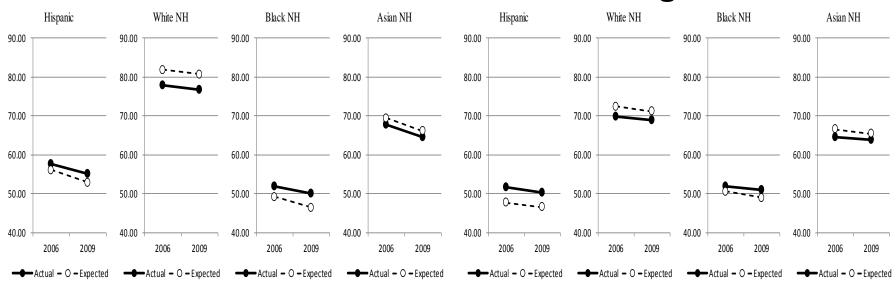
\*\*\* p<0.001, \*\* p<0.01, \*p<0.05

# Homeownership Rates

# Changes in actual and expected homeownership rates

#### **Native-born**

#### Foreign-born



- Whites and Asians have higher expected value than actual value
- Hispanic and Blacks have lower expected value than actual value.
- Both actual and expected value declined between 2006 and 2009 across all racial/ethnic groups

 Foreign-born shows same patterns with native-born

# 2006-2009 change in homeownership rates: actual vs. expected (expected – actual)

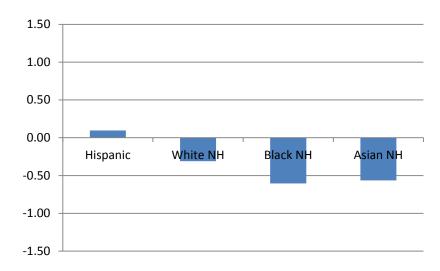
#### **Native-born**

# 1.50 1.00 0.50 0.00 Hispanic White NH Black NH Asian NH -0.50 -1.50

#### Homeownership rates show decline in all racial/ethnic groups

 Hispanics and Blacks have the larger differences of changes between actual and expected value

#### Foreign-born



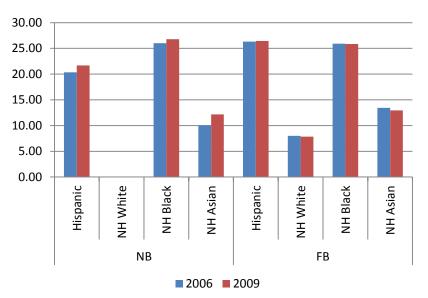
- Whites, Blacks, and Asians have decline in homeownership rates
- The effects of recession on homeownership rates for foreign-born are weaker than for native-born

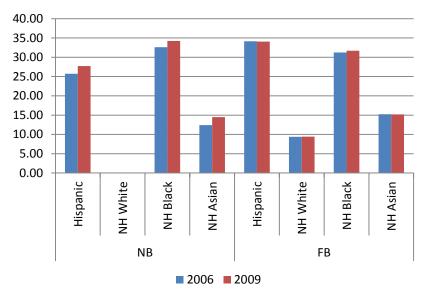
# Homeownership Gaps Between Native-born Whites and Minorities

# Homeownership gaps between native-born Whites and minorities

#### **Actual Values**

#### **Expected Values**



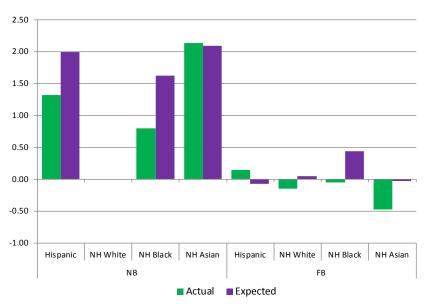


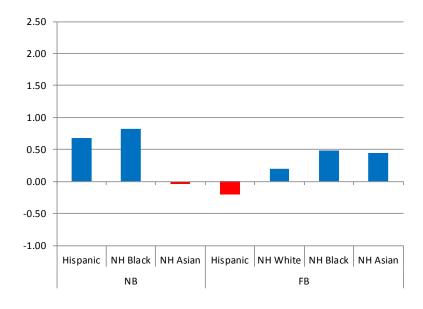
- Homeownership gaps were larger for Hispanics and Blacks than gaps for Asians
- Homeownership gaps between Whites and Asians were smaller than gaps between Whites and other racial/ethnic groups
- Expected values shows same patterns with actual values
- Hispanics and Blacks shows larger gaps
- Asians shows smaller gaps

#### 2006-2009 change in homeownership gaps

#### 2006 vs. 2009

#### Actual (2006-09) vs. Expected (2006-09)





- Changes in both actual and expected homeownership gaps are large for native-born
- Actual homeownership gaps of foreignborn declined 2006-2009, while expected values show a different trend
- Homeownership gaps for foreign-born Whites, Blacks, and Asians decreased in actual values
- However, Homeownership gaps increased 2006-2009 after considering household formation

## **Conclusion (Hypothesis 1)**

- Hypothesis: There would be a stronger effect of the economic recession on household formation and homeownership of the minorities or immigrants than that of the native-born Whites
- Homeownership rates decline more than actual rates after considering household formation during the great recession
  - Native-born Hispanics and Blacks have larger declines in homeownership rates than native-born Whites
  - However, foreign-born Hispanics show similar declines to nativeborn Whites

## **Conclusion (Hypothesis 2)**

- Hypothesis: The gap in household formation and homeownership between minorities or immigrants and the White group would be larger
- Homeownership gaps between Whites and minorities in a recession are larger than in an economic boom year
  - Homeownership gaps between native-born Whites and foreignborn Whites, Blacks, and Asians look like they are decreasing in the current showing
  - but after considering household formation, the gaps are increasing between 2006 and 2009

# Thank you